



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of) MAIL STOP AF
Gudmundur HJARTARSON et al.) Group Art Unit: 2664
Application No.: 09/810,938) Examiner: Andrew Chung Cheun Lee
Filed: March 16, 2001) }
For: SYSTEM AND METHOD FOR PROGRAMMABLE SPECTRUM MANAGEMENT)))

REQUEST FOR RECONSIDERATION

Commissioner for Patents Alexandria, VA 22313-1450

Sir:

In complete response to the Official Action dated May 5, 2005, reconsideration and allowance of the above-identified application are respectfully requested.

Claims 18-21 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement, i.e., that the claims allegedly contain new subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants respectfully submit that the subject matter at issue finds support in various parts of the original specification. For example, the claim phrases "a first transmission channel", "second transmission channel", and "a third transmission channel" are disclosed in both Figure 3, elements 68, and in Figure 4 which shows up to N services over different frequencies which are in different transmission channels of varying bandwidth. The claim phrases "a first variable frequency bandwidth", "a second variable frequency bandwidth", and "third variable

frequency bandwidth" are disclosed in Figure 4 which shows up to N services over different frequencies which are in different transmission channels of varying bandwidth as represented by, e.g., the different widths of the different rectangles. The claim phrase "to adjust a band edge of either said first transmission channel or said second transmission channel to increase or to decrease said first and second frequency bandwidths" is shown in, for example, Figure 6, element e.

Accordingly, reconsideration and withdrawal of the rejection of Claims 18-21 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement are respectfully requested.

Claims 11, 13 and 14 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly failing to provide sufficient antecedent basis for the phrase "POTS detector circuit". Applicants have reviewed Claim 11 and note that this phrase is preceded by the indefinite article "a". Accordingly, Applicants are uncertain as to how to amend Claim 11 in a manner which will render this claim more definite. Accordingly, should the Examiner maintain this ground of rejection in a subsequent Official Action, he is respectfully requested to indicate to Applicants how this claim should be amended.

Claims 1-11, and 14-21 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Timm et al. (U.S. Patent Number 6,055,268). Regarding Claim 1, according to the Final Official Action, Timm et al. allegedly discloses the following:

"and a programmable filter coupled to receive an output signal from said broadband analog front end circuit (Fig. 15c, elements 1512, 1514; column 49, lines 9-10; lines 25-27) and configured to filter frequency bands of said output signal into a plurality of separate, variable bandwidth transmission channels are associated with said communications network (Fig. 15c, column 6, lines 53-58; column 25, lines 16-67), and wherein said frequency bands and said variable bandwidths are determined by programming said programmable filter (column 49, lines 9-10; column 19, line 62-67; column 20, lines 2-11; column 25, lines 16-67)."

However, Applicants respectfully disagree with this characterization of Timm et al. for at least the following reasons.

As correctly recognized in the Official Action, the system of Timm et al. does include a programmable filter 1514. However, the programmable filter 1514 is not "configured to filter frequency bands of said output signal into a plurality of separate

variable bandwidth channels" as set forth, among other features, in Applicants' Claim 1 combination. Instead, the programmable filter 1514 operates as part of a traditional channel equalizer to compensate for channel distortion. The programmable nature of filter 1514 enables the filter coefficients to be varied to "minimize the mean squared error between the filter output signal level and the desired signal level." See column 49, lines 10-12 of Timm et al. Thus, filter 1514 of Timm does not perform the claimed function of the programmable filter in Applicants' Claim 1 combination.

The Official Action also cites column 6, lines 53-58 and column 25, lines 16-67 in support of its contention that the system of Timm et al. performs this claimed filtering function. However those sections of Timm et al. do not support a conclusion that Timm et al. teach or suggest the claimed programmable filter function. More specifically, column 6, lines 53-58 of Timm et al. state:

"The method of rate negotiation is preferably employed with a DSL system capable of a varying rate. An example is a viable-rate DSL (VRDSL) system that can provide a variable upstream transmission throughput up to 400 Kbps and a downstream transmission throughput of from 400 Kbps up to 2.048 Mbps."

This rate negotiation method is <u>not</u> described as a programmable function of filter 1514. Moreover, it says nothing about a filter that is "configured to filter frequency bands of said output signal into a plurality of separate variable bandwidth channels." Column 25, lines 16-67 of Timm et al. describe how the overall bandwidth of a discrete multi-tone (DMT) system can be increased or decreased. Again, this portion of Timm et al. <u>has little or nothing to do with programmable filter 1514</u>.

Accordingly, reconsideration and withdrawal of this rejection with respect to Applicants' Claim 1 combination is respectfully requested.

Regarding independent Claims15, 18 and 20 similar arguments to those provided above apply. Specifically, regarding Claim 15, the programmable filter of Timm et al. does not, among other things, perform the function of "filtering said broadband analog signal using a programmable filter into a plurality of separate bands wherein said plurality of separate bands are determined by programming said filter to generate a plurality of variable bandwidth channels."

Regarding Claim 18, the programmable filter of Timm et al. does not, among other things, provide "a programmable filter coupled to receive an output signal from said broadband analog front end circuit and configured to filter frequency bands of said output signal into a plurality of different transmission channels including: a first transmission channel having a first variable frequency bandwidth; and a second transmission channel having a second variable frequency bandwidth, wherein said programmable filter can be programmed to adjust a band edge of either said first transmission channel or said second transmission channel to increase or decrease said first and second variable frequency bandwidths, respectively."

Regarding Claim 20, the programmable filter of Timm et al. does not, among other things, provide "filtering said broadband analog signal using a programmable filter into a plurality of separate frequency bands including a first transmission channel having a first variable frequency bandwidth and a second transmission channel having a second variable frequency bandwidth; programming said programmable filter to adjust a band edge of either said first transmission channel or said second transmission channel to increase or decrease said first and second variable frequency bandwidths, respectively; and transmitting said first and second transmission channels to different service providers."

Accordingly, reconsideration and withdrawal of the rejection of Claims 15, 18, 20 and the Claims that depend from them, under 35 U.S.C § 102(b) as being anticipated by Timm et al. are respectfully requested.

Claims 12 and 13 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Timm et al. (U.S. Patent Number 6,055,268) in view of Bremer et al. (U.S. Patent Number 6,546,090 B1). Applicants respectfully request reconsideration and withdrawal of the rejection of Claims 12 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Timm et al. (U.S. Patent Number 6,055,268) in view of Bremer et al. (U.S. Patent Number 6,546,090 B1) for at least the reasons cited above for the claims from which they depend.

All of the objections and rejections raised in the Final Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and a notice to that effect is earnestly solicited. Should the Examiner have any questions regarding this response, or the application in general, he is urged to contact the undersigned in order to expedite prosecution.

Respectfully submitted,

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